



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,805	10/29/2001	John P. Spoonhower	83373F-P	2696

7590

03/06/2006

Milton S. Sales
Patent Legal Staff
Eastman Kodak Company
343 State Street
Rochester, NY 14650-2201

EXAMINER

ANGEBRANDT, MARTIN J

ART UNIT	PAPER NUMBER
----------	--------------

1756

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/045,805	Applicant(s) SPOONHOWER ET AL.	
	Examiner Martin J. Angebrannt	Art Unit 1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/28/05.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-12 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 5-12 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1756

1. The response of the applicant has been read and given careful consideration. Responses to the arguments are presented after the first rejection to which they are directed. The non-elected claims have been cancelled.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-8,10,12 and 22 are rejected under 35 U.S.C. 102(a) as being fully anticipated by Kobayashi et al. JP 2001-184691.

Kobayashi et al. JP 2001-184691 teaches a bilayered optical recording medium which has two different recording layers formed on the same side of a disc substrate (see figures 3 and 4).

The diaryl ethenes are inherently fluorescent.

As the claims are directed to the unrecorded medium, the type of data is considered an intended use limitation, beyond the ability of the medium to record both digital and analog information. As the claims are directed to the unrecorded media, the limitations of claims 22-26 are lessened as these are intended use. This ability to record both type of data is considered inherent.

The claims merely require a photosensitive materials (ie a photosensitive layer) which may be on a disc substrate as required by claim 12. The photosensitive data storage product is one on which digital data “may be formed” (claim5) or “is capable of retaining an optical image thereon” (claim 22). The applicant mistakenly believes that the claims require these media to be recorded upon. This is incorrect. The examiner has not only shown that the media of the prior art record and retain information, but has shown that they are able to be used in near field imaging processes. The examiner would like to point out that near field imaging relies upon the closeness of a mask (ie. contact exposure processes) or the final lens in the optical train (the SIL lens 22D in Kobayashi et al. JP 2001-184691) so that the spacing between these elements and the photosensitive layer is minimized. Generally this distance is on the order of less than a few microns. The examiner points out that the diarylethenes are photochromic materials embraced by the language of the prepub of the instant specification at [0034]. Further, the digital data would be pits ([0033] in the prepub) and there would be no difference between one recorded as the medium is rotating (dynamic) and one recorded in a static condition (contact exposure). The rejection stands.

5. Claims 5-6,9,10,12 and 22 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Mizutani JP 01-144247.

Art Unit: 1756

Mizutani JP 01-144247 teaches with respect to figure 1g, a disk substrate coated with a photographic emulsion. This is then contact exposed in figure 1h (contact exposure inherently being a near field process due to the proximity of the masking element , X).

The applicant argues as if Mizutani JP 01-144247 is applied in an obviousness rejection and cures “defects” in the rejection based upon Kobayashi et al. This is incorrect. The examiner also points out that the applicant’s own specification specifically describes the use of silver halide photographic materials at [0034] of the prepub. The rejection stands.

6. Claims 5-6,9,10 and 22 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Stevens ‘587.

Stevens ‘587 teaches with respect to figure 1, a substrate coated with a photographic emulsion, which is then exposed using a floating head through a solution of index matching fluid. (2/36-58).

The applicant argues as if Stevens ‘587 is applied in an obviousness rejection and cures “defects” in the rejection based upon Kobayashi et al or the other references applied in anticipation rejections. This is incorrect. The examiner also points out that the applicant’s own specification specifically describes the use of silver halide photographic materials at [0034] of the prepub. The rejection stands.

7. Claims 5-6, 9-12 and 22 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Pardee et al. ‘989

Pardee et al. ‘989 in example 1, a color movie film photographic emulsion is lubricated and then attached to a disc substrate. (5/32-49)

Art Unit: 1756

The examiner holds that a non-photosensitive layer is outermost on the film, the color film has plural emulsions stacked atop one another and this inherently is a protective layer. The applicant argues as if Pardee et al. '989 is applied in an obviousness rejection and cures "defects" in the rejection based upon Kobayashi et al or the other references applied in anticipation rejections. This is incorrect. The examiner also points out that the applicant's own specification specifically describes the use of silver halide photographic materials at [0034] of the prepub. The rejection stands.

8. Claims 5-8,10 and 22 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Hamano et al. "Rewritable Near filed optical recording on photochromic films", Jap. J. Appl. Phys, Vol 35 (pt 1, No 3) pp. 1764-1767 (1996).

Hamano et al. "Rewritable Near filed optical recording on photochromic films", Jap. J. Appl. Phys, Vol 35 (pt 1, No 3) pp. 1764-1767 (1996) teach a single layer optical recording medium on a substrate (see figure 1 and section 3). The diaryl ethenes are inherently fluorescent. The examiner holds that a non-photosensitive layer is outermost on the film, the color film has plural emulsions stacked atop one another and this inherently is a protective layer.

The applicant argues as if Hamano et al. "Rewritable Near filed optical recording on photochromic films", Jap. J. Appl. Phys, Vol 35 (pt 1, No 3) pp. 1764-1767 (1996) is applied in an obviousness rejection and cures "defects" in the rejection based upon Kobayashi et al or the other references applied in anticipation rejections. This is incorrect. The examiner also points out that the applicant's own specification specifically describes the use of photochromic materials at [0034] of the prepub. The rejection stands.

Art Unit: 1756

9. Claims 5-8,10 and 22 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Numakura JP 59-005248.

Numakura JP 59-005248 teaches a substrate coated with a photochromic material, which is then exposed using a contact exposure process with mask 3. (figure 1a-c).

The applicant argues as if Numakura JP 59-005248 is applied in an obviousness rejection and cures “defects” in the rejection based upon Kobayashi et al or the other references applied in anticipation rejections. This is incorrect. The examiner also points out that the applicant’s own specification specifically describes the use of photochromic materials at [0034] of the prepub. The rejection stands.

10. Claims 5-8,10-12 and 22-26 are rejected under 35 U.S.C. 102(a) as being fully anticipated by Ogura JP 2001-076382. (machine translation attached)

Ogura JP 2001-076382 teaches a bilayered optical recording medium which has two different photosensitive layers formed on the same side of a disc substrate, a disk substrate, an Al reflective layer (25), a tracking layer (24) formed of spiropyran (a photochromic material), a spacer (23), a diarylethene photochromic recording layer (22) and a protective layer (21) is 10 nm thick. ([0029-0032] and figures). The diaryl ethenes are inherently fluorescent.

The applicant argues as if Ogura JP 2001-076382 is applied in an obviousness rejection and cures “defects” in the rejection based upon Kobayashi et al or the other references applied in anticipation rejections. This is incorrect. The examiner also points out that the applicant’s own specification specifically describes the use of photochromic materials at [0034] of the prepub. The rejection stands.

11. Claims 5-8,10,12 and 25-26 are rejected under 35 U.S.C. 102(e) as being fully anticipated by Weiss et al. '679.

Weiss et al. '679 teach a disk coated with a photochromic recording layer where one of the isomers is more luminescent (fluorescent) than the other (2/59-3/20).

The applicant argues as if Weiss et al. '679 is applied in an obviousness rejection and cures "defects" in the rejection based upon Kobayashi et al or the other references applied in anticipation rejections. This is incorrect. The examiner also points out that the applicant's own specification specifically describes the use of photochromic materials at [0034] of the prepub. The rejection stands.

12. Claims 5-6,8-12 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. '627 and Russell '704.

Russell '704 establishes photographic emulsions based optical recording media are old and well known. These include embodiments where color film is placed on one side of both sides of a substrate and include a protective layer. (7/60-8/15). The same is taught for luminescent materials.

Lee et al. '627 teach that double sided media have double the storage capacity of single sided media. (2/56-65). The protective layers are thin on the order of 40-80 nm to allow near field recording (10/18-36).

It would have been obvious to modify the teachings of Russell '704 which use color film to form multilayered optical recording media on either one a both sides of a substrate by using thinner protective layers as taught by Lee et al. '627 to allow for near filed recording.

No response is provided here as no further arguments were directed at this rejection.

Art Unit: 1756

13. Claims 5-12 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. '627 and Russell '704, further in view of Ogura JP 2001-076382.

In addition to the basis provided above, it would have been obvious to modify the combination of Lee et al. '627 and Russell '704 discussed above by using layers of photochromic materials, such as the layered structure of Ogura JP 2001-076382 in place of the photographic film to allow the resultant medium to be re-recordable/erasable and therefore reusable.

No response is provided here as no further arguments were directed at this rejection.

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

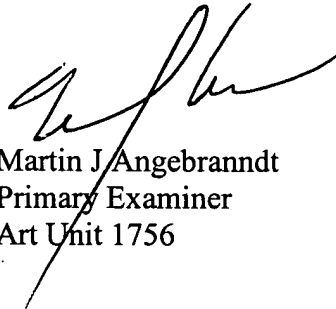
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin J. Angebrannndt whose telephone number is 571-272-1378. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

Art Unit: 1756

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Martin J. Angebranndt
Primary Examiner
Art Unit 1756

02/28/2006